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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/603,532	06/27/2000	Eric Cohen-Solal	US000149	4750

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EXAMINER	
CHANG, JON CARLTON	

ART UNIT	PAPER NUMBER
2623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/603,532	COHEN-SOLAL ET AL.	
	Examiner	Art Unit	
	Jon Chang	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6,7,9-19,21-24 and 26-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *10-13* is/are allowed.

6)☒ Claim(s) *1-4,6,7,9,14-19,21-24 and 26-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 September 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *6*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Response to Applicants' Amendment

1. The amendment filed October 20, 2003, has been entered and made of record.

In response to the amendment to the specification, the objection to the disclosure is withdrawn.

The indicated allowability of previous claims 5, 8, 12-13,14-15, 20, 25-28, 32 and 35 is withdrawn in view of the newly discovered reference(s) to Chaum (submitted by Applicants). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-4, 6-7, 9, 14-15 and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of U.S. Patent 6,408,278 to Carney et al. (hereinafter "Carney") and U.S. Patent 5,959,717 to Chaum.

As to claim 1, Carney discloses a method for presenting information to an audience, said method comprising the steps of:

processing an image signal generated by a visual capture device focused on said audience to extract relevant characteristics about said audience (column 6, lines 53-55, and 64);

analyzing said extracted characteristics (column 6, lines 65-66); and

modifying said presented information based on said analysis (column 7, lines 33-35).

Carney does not disclose a processing a video signal from an audio/visual capture device. However, the Examiner takes Official Notice that audio/visual capture devices which produce audio and video signals are well known in the art. The use of an audio/visual capture device is not seen as a patentable difference. Use of a audio/visual capture device (e.g., a video camera) instead of a camera, is seen as a substitution of an art recognized equivalent for the purpose of analyzing an image to determine characteristics of subjects (i.e., the audience) in the image. Thus, use of an audio/visual capture device in place of Carney's camera is considered obvious.

Carney does not disclose that the extracted characteristics evaluate the degree of attention the audience is paying to said presented information. However, this is well known in the art as evidenced by Chaum. Chaum teaches using pattern recognition

techniques to determine the amount of time audience members face the screen (column 10, lines 21-22). This effectively evaluates the degree of attention the audience is paying to the presented information, since the attention one pays to a screen would be related to the length of time one faces the screen. Note also that this is similar to Applicants' disclosed invention which determines whether an individual is facing a display to determine the degree of attention (Applicants' specification, page 13, lines 3-7). Chaum's invention would allow Carney's system to better tailor programming to the audience (note Chaum, column 10, lines 38-61), of which Carney's system is concerned. Therefore it would have been obvious to one of ordinary skill in the art to modify Carney's system according to Chaum's teaching.

Regarding claim 2, Carney discloses the method of claim 1, wherein said extracted characteristics include one or more demographic statistics (column 7, lines 8-10).

With regard to claim 3, Carney discloses that said extracted characteristics include the current size of the audience (at column 6, lines 6-11, Carney mentions a "sufficient number" implying that the system counts the number of individuals in the audience).

Regarding claim 4, Carney discloses the method of claim 1, wherein said extracted characteristics evaluate how quickly said audience is changing over time (abstract, last four lines; column 5, lines 51-56).

With regard to claim 6, Carney discloses a method for presenting information to an audience, said method comprising the steps of:

processing an image signal generated by a visual capture device focused on said audience to extract demographic statistics about said audience (column 6, lines 53-55, and 64); and

selecting said presented information based on said demographic statistics (column 7, lines 33-35).

Carney does not disclose a processing a video signal from an audio/visual capture device. However, the Examiner takes Official Notice that audio/visual capture devices which produce audio and video signals are well known in the art. The use of an audio/visual capture device is not seen as a patentable difference. Use of a audio/visual capture device (e.g., a video camera) instead of a camera, is seen as a substitution of an art recognized equivalent for the purpose of analyzing an image to determine characteristics of subjects (i.e., the audience) in the image. Thus, use of an audio/visual capture device in place of Carney's camera is considered obvious.

Carney does not disclose that the extracted characteristics evaluate the degree of attention a given demographic segment is paying to said presented information. However, this is well known in the art as evidenced by Chaum. Chaum teaches using pattern recognition techniques to determine the amount of time audience members of a demographic segment face the screen (column 10, lines 21-22 and 49-50). This effectively evaluates the degree of attention the audience is paying to the presented information, since the attention one pays to a screen would be related to the length of time one faces the screen. Note also that this is similar to Applicants' disclosed invention which determines whether an individual is facing a display to determine the

degree of attention (Applicants' specification, page 13, lines 3-7). Chaum's invention would allow Carney's system to better tailor programming to the audience (note Chaum, column 10, lines 38-61), of which Carney's system is concerned. Therefore it would have been obvious to one of ordinary skill in the art to modify Carney's system according to Chaum's teaching.

As to claim 7, Carney further discloses the step of evaluating how said demographics change over time (see last four lines of the abstract; column 5, lines 51-56).

With regard to claim 9, Carney discloses the method of claim 6, wherein said demographics statistics evaluate said audience on the basis of at least one of age, race and gender (column 5, lines 47-49).

With regard to claim 14, the discussion provided above for claim 1 is applicable. With regard to the claimed adjusting the current selection of said presented information if said degree of attention meets predefined criteria, this is implied by Chaum since of concern to Chaum is the amount of time the audience faces the screen, rather than merely determining whether they are facing the screen.

Regarding claim 15, the degree of attention is inferred on the basis of at least whether an individual is facing the display (column 10, lines 21-22; note that in determining the amount of time the audience is facing the display, whether the audience is facing the display is also determined).

As to claim 29, remarks analogous to those presented above for claim 1 are applicable. The memory, computer readable code and processor are included in the computers in which Carney's invention operate (e.g., Fig.2).

As to claim 30, remarks analogous to those presented above for claim 6 are applicable. The memory, computer readable code and processor are included in the computers in which Carney's invention operate (e.g., Fig.2).

As to claim 31, Carney discloses a system (Fig.2) for presenting information to an audience, said method comprising the steps of:

processing an image signal generated by a visual capture device focused on said audience to determine how quickly said audience is changing over time (last four lines of abstract; column 5, lines 51-56; column 6, lines 53-55, and 64); and

selecting said presented information based on said determination of how quickly said audience is changing (abstract, last four lines; column 6, lines 3-11; column 7, lines 33-35).

Carney does not disclose a processing a video signal from an audio/visual capture device. However, the Examiner takes Official Notice that audio/visual capture devices which produce audio and video signals are well known in the art. The use of an audio/visual capture device is not seen as a patentable difference. Use of a audio/visual capture device (e.g., a video camera) instead of a camera, is seen as a substitution of an art recognized equivalent for the purpose of analyzing an image to determine characteristics of subjects (i.e., the audience) in the image. Thus, use of an audio/visual capture device in place of Carney's camera is considered obvious.

The memory, computer readable code and processor are included in the computers in which Carney's invention operate (e.g., Fig.2).

Carney does not disclose determining the degree of attention the audience is paying to said presented information. However, this is well known in the art as evidenced by Chaum. Chaum teaches using pattern recognition techniques to determine the amount of time audience members face the screen (column 10, lines 21-22). This effectively evaluates the degree of attention the audience is paying to the presented information, since the attention one pays to a screen would be related to the length of time one faces the screen. Note also that this is similar to Applicants' disclosed invention which determines whether an individual is facing a display to determine the degree of attention (Applicants' specification, page 13, lines 3-7). Chaum's invention would allow Carney's system to better tailor programming to the audience (note Chaum, column 10, lines 38-61), of which Carney's system is concerned. Therefore it would have been obvious to one of ordinary skill in the art to modify Carney's system according to Chaum's teaching.

With regard to claim 32, see the discussion above for claims 1, 14 and 31.

5. Claims 16-19, 21-24, 26-28 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Carney, U.S. Patent 5,550,928 to Lu et al. (hereinafter "Lu"), and Chaum.

As to claim 16, Carney discloses a method for evaluating information presented to an audience, said method comprising the steps of:

processing an image signal generated by a visual capture device focused on said audience to extract demographic statistics about said audience (column 6, lines 53-55, and 64).

Carney does not disclose generating a report indicating said demographic statistics of said audience. Lu teaches generating an audience report (Fig.3, element 84; column 10, lines 46-47). Generating an audience report would provide useful information to clients of Carney's system, allowing them to plan programming. Therefore, it would have been obvious to modify Carney's invention to generate reports. Since Carney's system is concerned with demographics of an audience, the report would indicate the demographic statistics.

Neither Carney nor LU disclose determining the degree of attention a given demographic segment is paying to said presented information. However, this is well known in the art as evidenced by Chaum. Chaum teaches using pattern recognition techniques to determine the amount of time audience members of a demographic segment face the screen (column 10, lines 21-22 and 49-50). This effectively evaluates the degree of attention the audience is paying to the presented information, since the attention one pays to a screen would be related to the length of time one faces the screen. Note also that this is similar to Applicants' disclosed invention which determines whether an individual is facing a display to determine the degree of attention (Applicants' specification, page 13, lines 3-7). Chaum's invention would allow Carney's system to better tailor programming to the audience (note Chaum, column 10, lines 38-61), of which Carney's system is concerned. Therefore it would have been obvious to

one of ordinary skill in the art to modify Carney's system, as modified by Lu, according to Chaum's teaching.

Regarding claim 17, Carney discloses the method of claim 16, wherein said demographic statistics indicate a size of said audience (at column 6, lines 6-11, Carney mentions a "sufficient number" implying that the system counts the number of individuals in the audience).

As to claim 18, Carney discloses the method of claim 16, wherein said demographic statistics indicate a size of said audience for at least one demographic segment (at column 6, lines 6-11).

Referring to claim 19, Carney discloses the method of claim 16, wherein said demographic statistics indicate a rate of change of said audience for at least one demographic segment (see last four lines of the abstract; column 5, lines 47-56).

Regarding claim 21, Carney discloses a method for evaluating information presented to an audience, said method comprising the steps of:

processing at an image signal generated by a visual capture device focused on said audience to extract relevant characteristics about said audience (column 6, lines 53-55, and 64);

Carney does not disclose generating a report indicating said demographic statistics of said audience. Lu teaches generating an audience report (Fig.3, element 84; column 10, lines 46-47). Generating an audience report would provide useful information to clients of Carney's system, allowing them to plan programming. Therefore, it would have been obvious to modify Carney's invention to generate reports.

Since Carney's system is concerned with relevant characteristics of an audience, the report would indicate the relevant characteristics.

Neither Carney nor Lu disclose that the extracted characteristics evaluate the degree of attention a given demographic segment is paying to said presented information. However, this is well known in the art as evidenced by Chaum. Chaum teaches using pattern recognition techniques to determine the amount of time audience members of a demographic segment face the screen (column 10, lines 21-22 and 49-50). This effectively evaluates the degree of attention the audience is paying to the presented information, since the attention one pays to a screen would be related to the length of time one faces the screen. Note also that this is similar to Applicants' disclosed invention which determines whether an individual is facing a display to determine the degree of attention (Applicants' specification, page 13, lines 3-7). Chaum's invention would allow Carney's system to better tailor programming to the audience (note Chaum, column 10, lines 38-61), of which Carney's system is concerned. Therefore it would have been obvious to one of ordinary skill in the art to modify Carney's system, as modified by Lu, according to Chaum's teaching.

As to claim 22, Carney discloses the method of claim 21, wherein said extracted relevant characteristics indicate a size of said audience (at column 6, lines 6-11, Carney mentions a "sufficient number" implying that the system counts the number of individuals in the audience).

Regarding claim 23, Carney discloses the method of claim 21, wherein said extracted relevant characteristics indicate a size of said audience for at least one demographic segment (at column 6, lines 6-11).

Regarding claim 24, Carney discloses the method of claim 21, wherein said extracted relevant characteristics indicate a rate of change of said audience for at least one demographic segment (see last four lines of the abstract; column 5, lines 47-56).

With regard to claim 26, see the remarks provided above for claim 16.

With regard to claim 27, see the remarks provided above for claim 19.

Regarding claim 28, see the relevant remarks provided above for claim 21.

As to claim 33, remarks analogous to those presented above for claim 16 are applicable. The memory, computer readable code and processor are included in the computers in which Carney's invention operate (e.g., Fig.2).

As to claim 34, remarks analogous to those presented above for claim 21 are applicable. The memory, computer readable code and processor are included in the computers in which Carney's invention operate (e.g., Fig.2).

With regard to claim 35, the discussion provided above for claim 26 is applicable. The memory, computer readable code and processor are included in the computers in which Carney's invention operate (e.g., Fig.2).

Allowable Subject Matter

6. Claims 10-13 are allowed.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon Chang whose telephone number is (703)305-8439. The examiner can normally be reached on M-F 8:00 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703)308-6604. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

Jon Chang
Primary Examiner
Art Unit 2623

Jon Chang
January 6, 2004